Cyber Threat Awareness & Simulation Platform

Introduction

Cybersecurity awareness is crucial in today's digital world, where cyber threats are increasingly sophisticated. The **Cyber Threat Awareness & Simulation Platform (CTASP)** aims to educate users about common cyber threats through interactive simulations, quizzes, and a user-friendly dashboard. The platform is designed for students, employees, and general users to strengthen their knowledge of cybersecurity practices.

Abstract

This project is a web-based platform built using PHP and MySQL, with interactive dashboards implemented using Chart.js. The platform allows users to register, login, and participate in simulations and quizzes. Administrators can manage users, monitor performance, and analyze trends through visual reports. By providing real-world scenario simulations, users can better understand potential cyber threats and how to mitigate them.

Tools Used

- **XAMPP/WAMP** – Local server environment for PHP and MySQL

- **PHP** – Backend development

- **MySQL** – Database management

- **HTML/CSS/JavaScript** – Frontend design

- **Chart.js** – Visualization of user performance and quiz results

- **PHPMailer** – Email notifications

- **Fast2SMS API** – Mobile OTP verification

Steps Involved in Building the Project

1. **Requirement Analysis:** Defined target users, features, and cybersecurity topics to cover.

2. **Database Design:** Created MySQL database to store user data, quizzes, simulations, and performance results.

3. **Frontend Development:** Built responsive web pages for registration, login, dashboard, quizzes, and simulations.

4. **Backend Development:** Implemented PHP scripts for user authentication, quiz evaluation, and admin management.

5. **Integration of Tools:** Integrated PHPMailer for email OTP verification and Fast2SMS for mobile OTP verification.

6. **Visualization:** Added Chart.js to display user performance and analytics.

7. **Testing & Debugging:** Conducted rigorous testing to ensure correct functionality, proper validation, and security of the platform.

Conclusion

The Cyber Threat Awareness & Simulation Platform successfully educates users about cybersecurity threats through interactive learning. The project demonstrates practical implementation of web technologies and provides a secure environment for users to gain hands-on experience. By using this platform, organizations and individuals can enhance their cybersecurity awareness, reducing the risk of cyber attacks.